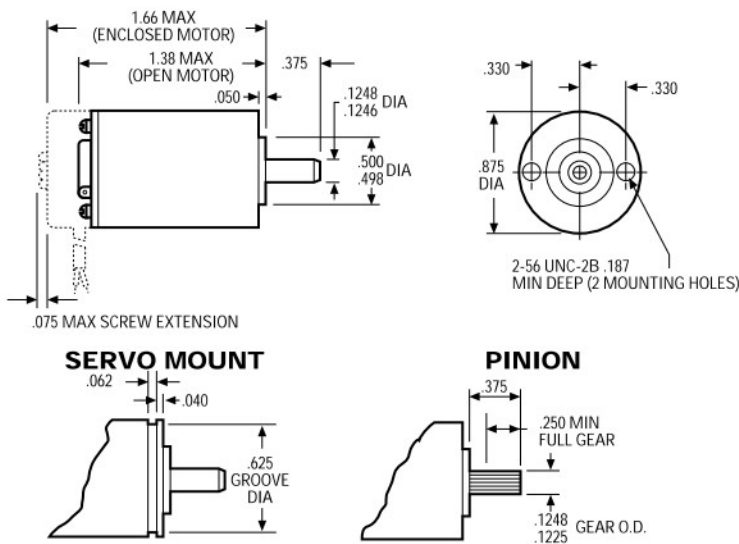




Dimensions



PINION DATA: NUMBER OF TEETH - 13
 DIAMETRAL PITCH - 120
 PRESSURE ANGLE - 20°
 MEAS. OVER. .0144 DIA
 PINS - .1272/.1262
 AGMA 9 IS STANDARD. OTHER PINIONS ARE AVAILABLE. PINION AVAILABLE WITH BOTH TAPPED HOLE AND SERVO MOUNT UNITS

general design specification

power rating: .004 hp (3 W)

voltage: 6 to 50 VDC

weight: 2 ounces

armature: Dynamically balanced

inertia: 2.55×10^{-5} oz. in. sec.²

electrical time constant: 0.5 milliseconds max

mechanical time constant: 20.0 milliseconds max

typical no load torque: 0.23 oz. in.

protection: Varnish impregnated

shaft: Precision-ground, through-hardened (RC 40-50) 420 stainless steel per ASTM A582. Options: length, smaller diameter, flats, pinions, gears, holes (through or tapped), threaded ends and tapers. Type of steel used may change depending upon variation selected

magnets: Alnico V

bearings: Double shielded, life-lubricated for -55°C to +85°C operation. Special lubricants available for temperature extremes

cables/leads: Open motor has solder terminals. Enclosed motor has 8" shielded cable per MIL-C-7078 #26 AWG conductors per MIL-W-16878/4

housing: Aluminum

marking: Per MIL-STD-130

life: 1,000 hours continuous duty for 27 VDC units

winding temperature rise: 15°C per watt w/8.00" x 8.00" x .25" aluminum heat sink

winding insulation rating: 130°C (higher temperature windings available)

options available:

- Gear train (see A-1430 for details)
- Electromechanical brakes
- RFI filters to meet MIL-I-6181, MIL-I-26600 or MIL-STD-46
- Integral tachometer generators

A-1400

Standard Part Numbers and Data

VOLTAGE (VDC)	SPEED no load (rpm)	TORQUE		CURRENT			CONSTANTS		ARMATURE DASH NUMBER*
		max rated (oz. in.)	** theoretical stall (oz. in.)	max no load (amps)	max rated load (amps)	** nominal stall (amps)	K_t (oz. in./amp)	R (ohms)	
6	11,000-13,500	.28	1.90	.460	1.00	4.10	.58	1.44	-17
6	8,500-11,000	.38	1.50	.370	1.00	2.70	.73	2.27	-16
12	13,500-17,000	.22	2.60	.270	.54	3.20	.95	3.70	-15
12	10,000-13,000	.33	2.00	.210	.54	1.90	1.32	6.46	-14
27	17,000-20,000	.17	3.60	.200	.26	2.40	1.83	11.40	-13
27	15,000-18,000	.20	3.10	.140	.25	1.70	2.05	16.00	-12
27	12,000-15,000	.25	2.40	.110	.24	1.15	2.50	24.50	-1
27	10,000-13,000	.31	1.80	.100	.23	.76	2.94	36.30	-2
27	8,000-10,500	.45	1.40	.080	.23	.48	3.67	57.10	-3
27	6,500-9,000	.45	1.10	.070	.20	.32	4.41	86.40	-4
27	5,500-7,500	.36	.82	.060	.15	.21	5.29	130.00	-5
50	10,000-13,000	.32	.97	.050	.13	.23	5.58	219.00	-7
50	8,500-10,500	.42	1.20	.055	.13	.26	6.32	196.00	-6

**Because of brush drop and field distortion, current and torque indicated will not always be attainable

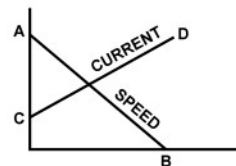
STANDARD PART NUMBER PREFIX*	TAPPED HOLE MOUNT	
	Housing	Shaft
41A100	Open	Plain
41A552	Open	Pinion
41A119	Enclosed	Plain
41A676	Enclosed	Pinion

STANDARD PART NUMBER PREFIX*	SERVO MOUNT	
	Housing	Shaft
41A499	Open	Plain
41A677	Open	Pinion
41A678	Enclosed	Plain
41A679	Enclosed	Pinion

*When You Order

Complete part number consists of the standard part number plus an armature dash number. EXAMPLE: 41A119-1 is 27 VDC, 12,000-15,000 rpm enclosed motor with tapped hole mount and plain shaft

How To Draw Speed Torque Curve



- A no load speed (nominal) (rpm)
- B stall torque (oz. in.)
- C no load current (amps)
- D stall current (amps)

Typical Performance

Part No.: 41A100-1

Voltage: 27 VDC

